CLAIMS

1) An automatic mechanically controlled continuously-variable-ratio drive (1), comprising an input shaft (2); a flywheel (10) integral with the input shaft; a drive assembly (5) idle with respect to the input shaft (2) and having a drive pulley (6) defined by two half-pulleys (6a, 6b) defining a groove (8) of variable size for a V belt (C); friction clutch means (32) interposed between at least one of said half-pulleys (6a, 6b) and said flywheel (10); and a centrifugal control assembly (36) comprising a speed adjusting device (43) for adjusting the size of the groove (8) of the drive pulley (6) in response to variations in the speed of said input shaft (2); characterized in that said centrifugal control assembly (36) comprises a centrifugal actuating device (42) controlling said clutch means (32) and for setting said clutch means (32) to a torque transmission condition in response to an angular speed value of said input shaft (2) above a first threshold value, to connect said drive pulley (6) angularly to said flywheel (10); said speed adjusting device (43) being active over a second threshold value of the angular speed of the input shaft (2) higher than said first threshold value.

2) A drive as claimed in Claim 1, characterized in that said half-pulleys (6a, 6b) are angularly fixed with respect to each other.

3) A drive as claimed in Claim 1, characterized in that said drive assembly (5) comprises a sleeve (15) fitted in axially and angularly free manner to said input shaft (2); a first of said half-pulleys (6a) being fixed with respect to said sleeve (15); and a movable second of said half-pulleys (6b) being fitted in axially movable but angularly fixed manner to said sleeve (15).

4) A drive as claimed in Claim 3, characterized in that said drive assembly (5) comprises stop means (18) for the movable said second half-pulley (6b), defining a maximum parting position from said first half-pulley (6a), in which said belt (C) cooperates, with no axial slack, with both said half-pulleys (6a, 6b) and is maintained taut; and elastic means (19) for forcing said second half-pulley (6b) into said position.

5) A drive as claimed in Claim 3, characterized in that said clutch means (32) comprise a clutch disk (24) interposed axially between said first half-pulley (6a) and said flywheel (20).

6) A drive as claimed in Claim 3, characterized in that said actuating device (42) comprises a number of auxiliary weights (45) rotating integrally with said input shaft (2) and acting on a push member (54) interposed between said auxiliary weights (45) and said drive assembly (5) to move said drive assembly (5) towards said flywheel (10) and grip said clutch disk (24) between said flywheel (10) and said first half-pulley (6a).

7) A drive as claimed in Claim 6, characterized by comprising a reaction disk (39) integral with the input shaft (2) and having a conical wall (40); said speed adjusting device (43) comprising a push disk (65) having a conical wall (67) facing said conical wall (40) of said reaction disk (39), and a number of main weights (68) having respective conical end surfaces (70, 71) cooperating with said conical walls (40, 67) to move said push disk (65) axially towards said flywheel (10) by virtue of the radial movement of said main weights (68).

8) A drive as claimed in Claim 7, characterized in that said push member of said actuating device (42) is defined by an actuating ring (54) having a conical surface (56) facing said conical wall (40) of said reaction disk (39); said auxiliary weights (45) having respective conical end surfaces (48, 50) cooperating respectively with said conical surface (56) of said actuating ring (54) and said conical wall (40) of said reaction disk to move said actuating ring (54) axially towards said drive assembly (5) by virtue of the radial movement of said auxiliary weights (45).